

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An imaging system arranged to reduce an artifact in a three-dimensional reconstructed volume comprising a plurality of planar images, said imaging system comprising comprising:

an image artifact reducer arranged to process said planar images with a first corrective image for eliminating a first source of structured noise in said images, thereby producing a gain corrected image, arranged to apply an unwarping function to the gain corrected image, thereby producing an unwarped gain corrected image, and arranged to apply a second corrective image to the unwarped gain corrected image for eliminating a second source of structured noise in said images.

2. (Previously presented) The imaging system according to claim 1, wherein

the first corrective image comprises a first gain correction

data; and

the second corrective image comprises a second gain correction data.

3. (Currently amended) The imaging system according to claim 2, wherein:

the first gain correction data comprises a result of an averaging of a plurality of raw images of a gain calibration scan; and

the second gain correction data comprises a result of an averaging of a plurality of raw images of the gain calibration scan after the plurality of raw images of the gain calibration scan is processed utilizing the first corrective image ~~and~~ after the unwarping function is applied to the processed first corrective image.

4. (Previously presented) The imaging system according to claim 1, the image being acquired by an image intensifier, wherein the first source of noise comprises a noise of an output screen of the image intensifier and the second source of noise comprises a noise of an input screen of the image intensifier.

5. (Previously presented) The imaging system according to claim 4, wherein the first corrective image comprises a drift correction data arranged to correct for a movement of a projection of the output screen of the image intensifier during a rotational scan.

6. (Previously presented) The imaging system according to claim 1, wherein the imaging system is an X-ray examination apparatus.

7. (Currently amended) A method for reducing an artifact in a three-dimensional reconstructed volume comprising a plurality of planar images, said method comprising the steps of:

processing the image using a first corrective image to eliminate a first source of structured noise in the image yielding a first-stage corrected image;

processing the first-stage corrected image with an unwarping function yielding an unwarped first-stage corrected image; and

processing the unwarped first-stage corrected image with a second corrective image to eliminate a second source of structured noise in the image yielding a second-stage corrected image.

8. Currently amended) A method according to claim 7, wherein

the first corrective image comprises a first gain correction data, said first corrective image being constructed for a raw image of a gain calibration scan;

the second corrective image comprises a second gain correction data, said second corrective image being constructed ~~for~~ from the raw image of the gain calibration scan after the raw image of the gain calibration scan is processed by the first corrective image and ~~an~~ after the unwarping function is applied to the processed first corrective image.

9. (Currently amended) A method according to claim 8, wherein:

the first gain correction data comprises a result of an averaging of a plurality of raw images of the gain calibration scan;

the second gain correction data comprises a result of an averaging of a plurality of raw images of the calibration object after the raw image of the gain calibration scan is processed by the first corrective image and ~~an~~ after the unwarping function is applied to the processed first corrective image.

10. (Currently amended) A computer program stored on a computer readable memory medium, the computer program being arranged to reduce an artifact in a three-dimensional reconstructed volume comprising a plurality of planar images by processing the planar images with a first corrective image to eliminate a first source of structured noise in the images, thereby producing a gain corrected image, by applying an unwarping function to the gain corrected image, thereby producing an unwarped gain corrected image, and to
apply applying a second corrective image to the unwarped gain corrected image to eliminate a second source of structured noise in the images.